

Upper Main-River Reservoir Operations Under the ROS Preferred Alternative

As part of the Reservoir Operations Study, TVA examined all aspects of current reservoir operations, including the historic practice of filling the three upper Tennessee River reservoirs—Fort Loudoun/Tellico, Watts Bar, and Chickamauga—in a two-week window at the beginning of April.

This practice results in an abrupt drop in downstream flood protection, from a maximum level on April 1 to a minimum level on April 15. However, detailed computer simulations using 100 years of actual river flow data indicated that the downstream flood risk decreased only slightly during this period. This finding prompted TVA to evaluate a series of alternative operating policies that could provide additional flood damage reduction at Chattanooga while avoiding or reducing the adverse impacts to reservoir recreation, fish spawning, and other operating objectives.

Under the Preferred Alternative recommended by TVA staff, the spring fill on Fort Loudoun/Tellico, Watts Bar, and Chickamauga would begin, as always, around April 1. Pool levels would continue to rise during the first week in April, as weather permits. The remainder of the fill, which occurs during the second week of April under current policy, would occur gradually over the next five weeks, with the goal of completing the fill by mid-May.

As shown below, assuming normal rainfall and runoff, water levels on May 1 would be about a foot lower under the Preferred Alternative, compared with current policy. Levels on May 15 would be the same as under current policy.

Changes in Upper Main-River Reservoir Elevations Under the Preferred Alternative, as Compared with Current Operations*

	April 1	April 8	April 15	May 1	May 15
Fort Loudoun/Tellico	0	0	-2	-1	0
Watts Bar	0	0	-2	-1	0
Chickamauga	0	0	-2 1/2	-1 1/4	0

*In feet

The slower completion of the fill would provide additional flood damage reduction at Chattanooga and other downstream locations. It is unrelated to the changes in tributary reservoir operations proposed as part of the ROS.

Detailed computer simulations show that the proposed changes in fill operations on the upper main-river reservoirs would have reduced peak elevation and flow throughout the main river for two actual flood events that occurred in May 1984 and May 2003. At Chattanooga alone, flood damages would have been reduced by \$12 million and \$15 million, respectively, compared with damages under current policy.

The impacts on fish spawning would be minimized under the Preferred Alternative because much of the prime nesting habitat would be covered during the first week of the fill, before spawning begins. Additionally, a slow fill into the remainder of the shallows should benefit the growth and survival of both fry and young-of-year fish.

Next steps

The public is invited to review and comment on the final Environmental Impact Statement (FEIS) for TVA's Reservoir Operations Study during a 45-day period continuing through April 12, 2004.

Comments may be submitted by accessing the ROS Web site at www.tva.com/ros; by mail to TVA Reservoir Operations Study, WT 11A, 400 West Summit Hill Dr., Knoxville, TN 37902; or by fax to 865-632-3146. If you would like more information, please call TVA toll-free at 888-882-7675.

The TVA Board of Directors is expected to make a decision in late spring 2004 about whether to change TVA's reservoir operating policies.